

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claim 2 is canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 1, 3, and 9 are amended. The revisions to claims 1 and 9 are supported, for example, at Figure 1 and page 14, line 28 through page 15, line 20 in the specification. The revision to claim 3 is supported, for example, at page 14, lines 26-35. New claim 31 has been added. New claim 31 is supported, for example, at page 18, lines 5-10 in the specification. Claims 1, 3-13, 28, 30 and 31 are pending, with claims 1 and 9 being independent.

Restriction requirement

The Examiner has withdrawn claims 5-6, 10-11, and 28-30 from consideration. Applicants respectfully traverse this restriction with respect to all claims except for claim 29.

Applicants respectfully submit that claims 5-6, 10-11, 28 and 30 are properly included in elected Species A, which is drawn to the first embodiment of the invention as described in Figures 1-8. Claims 5-6 and 10-11 are supported in the discussion of the first embodiment, for example, at page 15, lines 15-20 and lines 27-30. Claim 28 is supported in the discussion of the first embodiment at Figure 1B, and at page 14, lines 26-31. Claim 30 is supported in the discussion of the first embodiment at page 15, lines 10-15. Therefore, each of claims 5-6, 10-11, 28 and 30 is properly grouped into elected Species A. Accordingly, Applicants respectfully request withdrawal of this restriction.

Claim rejections - 35 U.S.C. § 102(b)

Claims 1-4, 7-9, and 12-13 stand rejected as being unpatentable over U.S. Patent No. 5,091,793 (Goto). Applicants respectfully traverse this rejection.

Independent claim 1 recites a method that includes the steps of placing the reflecting mirror and the optical bench on an external jig provided with a mirror holding portion for maintaining the reflecting mirror, and bonding and fixing the reflecting mirror and the optical bench. A reflecting plane of the reflecting mirror is in contact with the mirror holding portion so as to specify a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror. By this arrangement, the thickness of the optical head can be reduced. See, e.g., page 18, lines 5-11 of the specification.

Goto does not teach or suggest such features. Goto is directed to an optical head that uses a land 29 to support a mirror 36 for directing light. The land 29 is formed on a planar base 26 of the optical head and not on an external jig. See col. 3, lines 42-57. Thus, Goto does not teach or suggest that a reflecting plane of the reflecting mirror is in contact with the mirror holding portion of an external jig so as to specify a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror. Instead, Goto teaches that an upper surface of the land 29, which is formed on the planar base 26 of the optical head, specifies the mounting angle of the mirror 36. Applicants therefore submit that claim 1 is allowable over the cited reference.

Claims 3-8, 28, and 30 depend from claim 1. Therefore, each of those claims is believed allowable for at least the reason that it is dependent upon an allowable base claim.

Independent claim 9 recites that an optical head with a reflecting mirror mounted in an optical bench. No reference plane is formed for specifying a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror through contact with the reflecting mirror. This configuration is possible, for example, when using an external jig. See, e.g., page 6, lines 3-4.

As discussed above, the land 29 described in Goto is formed on the optical head. The land 29 serves as a reference plane and specifies the mounting angle of the mirror. Accordingly, Goto does not teach or suggest an optical head with no reference plane for specifying a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror through contact with the reflecting mirror. Applicants therefore submit that claim 9 is allowable over the cited reference.

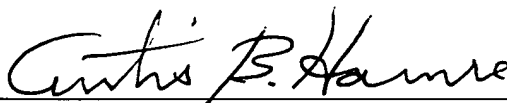
Claims 10-13, and 31 depend from claim 9. Therefore, each of those claims is believed allowable for at least the reason that it is dependent upon an allowable base claim.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: May 28, 2003


Curtis B. Hamre
Reg. No. 29,165
CBH:DTL